Two New Giant Epitoniids

(Mollusca : Gastropoda)

from West Africa

BY

PHILIPPE BOUCHET AND SIMON TILLIER

Laboratoire de Biologie des Invertébrés Marins et de Malacologie

Muséum National d'Histoire Naturelle, 55, rue Buffon, 75005 Paris

(1 Plate; 1 Text figure)

In 1971, two species of Epitoniids of large size were found washed ashore after a storm near Rufisque (Senegal). One of them is identical with a gastropod trawled in 1964 off Pointe-Noire, Congo, in 300 m and accessioned by MNHN in 1969. The second species has subsequently been found by various persons in West Africa. Surprisingly enough, the 2 species, both longer than 50 mm, appear to be undescribed. They are to be added to the list of species described in recent years from the coast of Senegal (Bouchet, 1975; Rosso, 1976, 1977; Bouchet & Nicklès, 1976) and show how little we know about even the larger species inhabiting the Senegalese shelf.

We shall first describe the species and then present a short synopsis of the family Epitoniidae in West Africa.

Amaea africana Bouchet & Tillier, spec. nov.

(Figures 1, 2, 6, 7, 8)

Type Material: Holotype (shell only) in MNHN (Kergroach coll., Lozet leg.).

Type Locality: Coastline near Rufisque, Senegal.

Material Examined: One adult shell, Bay of Gorée, Sénégal, MNHN (Marche-Marchad, coll.); one juvenile shell, Cavally, Ivory Coast, 50 - 55 m, MNHN (Rancurel and Marchal, coll.); one adult shell from Senegal, without precise data, MNHN (Lozet leg.); 4 shells, off Grand Bassam, Ivory Coast, MNHN and IFAN (Le Loeuff, coll.); east of Sassandra, Ivory Coast, 56 m, 1 shell; Grand Bereby, Ivory Coast, 56 m, 1 live-taken specimen; south of Cavally River, Ivory Coast, 44 m, 1 live-taken specimen: all MNHN (Le Loeuff leg.); 1 adult shell, Dakar area, coll. M. Pin.

Description: Holotype: shell slender, rather thin, fragile, composed of 13 whorls (the larval shell and about 1.5 postlarval whorls lacking); colour brownish orange with a narrow whitish subsutural band; columellar zone thickened, white; no umbilicus.

The sculpture is cancellate, composed of axial and spiral lines. On the "first" (see supra) postlarval whorl, there is a single, sharp, spiral cord forming a sort of keel visible down to the 5th whorl. On the second whorl 2 spiral lines appear under the keel; at the beginning of the 4th whorl a 3rd one appears under these 2, together with 2 other spiral lines above the keel. Along the 4th whorl, secondary spiral lines appear above and between the main lines. The number of lines increases in the following whorls: on the body-whorl a dozen main spiral lines can be counted, with 3 to 10 secondary ones between 2 adjacent main lines. The axial sculpture is formed by thin lamellae crossing over the spiral sculpture; these lamellae are straight and are bent only frontwards in the subsutural zone. On the body-whorl they show a tendency to merge together and we count 65 of them. The growth lines are hardly visible.

The basal disc is lined by a rather strong spiral cord; below this, the numerous spiral threads are thin and more regular than above.

Dimensions of the Shell: Height, 48 mm, diameter, 18 mm.

Other Specimens: The juvenile shell also lacks the apex but probably only the protoconch has fallen off; this shell has 1.5 more upper whorls than the holotype. The keel is present up to the top; the mode of formation of the spiral sculpture is the same as in the holotype. All other specimens correspond well with the holotype with slight vari-

ation in colour and number and breadth of the spiral threads of the last whorls. At a diameter similar to that of the body-whorl of the holotype, the axial lamella-number varies from 50 to about 80.

The longest shell (M. Pin, coll.) is 55 mm high, with a diameter of 21 mm and 11.5 whorls (first whorls missing).

Radula: 53 × (46 - 50) · 0 · 0 · 0 · (46 - 50): Figure 8; operculum illustrated in Figure 7.

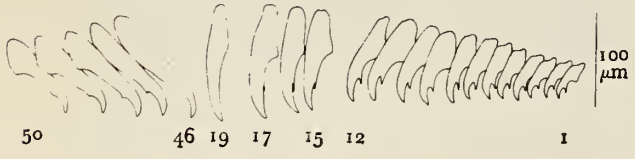

Figure 8

Amaea africana Bouchet & Tillier, spec. nov.

Half-row of the radula of a specimen from Grand Bereby, Ivory Coast, 56 m

Remarks: There is no doubt that this is the species figured by Caricati (1975: 235; plt. 4, figs. 1 - 2) as *Amaea* cf. *mitchelli* (Dall); Caricati mentioned West Africa only as the probable origin. Indeed, *A. africana* is not closely similar to any other West African species and is closer to *A. mitchelli* Dall, 1896 than to any other. We have compared *A. africana* with the plates of Clench & Turner (1950: plt. 106, figs. 5 - 7), Andrews (1971: 84), and with actual specimens of *A. mitchelli* from the coast of Texas, including the type (USNM 465611). The American species is more solid and has a coarser sculpture; it is white with a median brown band and with a similar band below the basal keel. *Amaea africana* also comes near *A. brunneopicta* (Dall, 1896) from the Panamic Province, but the latter is more slender and thinner.

We do not know any fossil from Europe to which it can be compared, but a few American fossils could be considered ancestors of the *africana-mitchelli-brunneopicta* group of species:

– *Epitonium eleutherium* Pilsbry & Olsson, 1941, from the Pliocene of Ecuador is very close to *Amaea brunneopicta*;

– *Ferminoscala pseudoleroyi* (Maury, 1925), from the Miocene of Jamaica, as illustrated by Woodring (1928: 402; plt. 32, figs. 3 - 4; ?= *Scalina gardnerae* Olsson, 1967: Miocene of Florida) differs by its slenderness and stronger spiral sculpture.

Amaea guineense Bouchet & Tillier, spec. nov.

(Figures 3, 4, 5)

Type Material: Holotype and one paratype (shells only) in MNHN (Kergroach coll., Lozet leg.).

Type Locality: Coastline near Rufisque, Senegal.

Material Examined: One shell, off Pointe-Noire, Congo, 300 m (Crosnier, Orstom leg.).

Description: Holotype: shell slender, solid, of a uniform creamy colour. There are 8 whorls, but the protoconch and several postlarval whorls have been broken off at a diameter of 5 mm. The whorls are twice as broad as high and the suture is deep. The columella is remarkably thickened for an *Amaea*. There is no umbilicus.

The sculpture is cancellate, composed of axial and spiral lines. The spiral sculpture is formed by 9 main threads, visible from the first postlarval whorl still present. From the 3rd preserved whorl, secondary threads appear between them: their number (1 to 3 between 2 adjacent main spiral threads) and importance are not constant. In the subsutural zone, there are 4 to 6 secondary spiral threads; they are oblique and cannot be followed from one side of any axial lamella to the other. The axial lamellae are developed to roughly the same degree as the main spiral threads and they deviate a little backwards when they cross over the latter. Near the upper

Explanation of Figures 1 to 7

Amaea africana Bouchet & Tillier, spec. nov.

Figure 1: Holotype, ventral view; length 48 mm; diameter 18 mm
Figure 2: Juvenile specimen, Cavally, Ivory Coast; ventral view; length 10 mm; diameter 4 mm
Figure 6: Holotype, view of the basal disc; diameter 18 mm
Figure 7: Operculum of a specimen from south of Cavally River, Ivory Coast, 44 m

Amaea guineense Bouchet & Tillier, spec. nov.

Figure 3: Paratype, ventral view; length 39.5 mm; diameter 15.5 mm
Figure 4: Holotype, ventral view; length 64 mm; diameter 26 mm
Figure 5: Paratype, view of the basal disc; diameter 15.5 mm

(Photographs by A. Foubert)


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2


3


5


6


4


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